Environmental Quality Incentives Program
Upper South Platte River Watershed
Non-Point Source Reduction - Water Quantity/Quality Ranking Criteria
FY-2003

1A. System Efficiency

Irrigation Water – Improvement in efficiency for the irrigation system on the offered acres. Points are to be calculated by using the formula [(% of acreage offered) times (% efficiency CHANGE on those acres) times 100] then adding all values. See the example for guidance.

SYSTEM TYPE	PSI REQ	SYS EFF
Impact nozzling overhead/end gun	60+	68%
180 degree spray overhead	30	65%
360 degree LDN truss level	20-30	80%
Rotator wobbler type	30-45	80%
1 ft. below trusses	30-45	80%
Extended drops LDN or LEPA	15-25	90%
Flood (border, contour ditch, corrugations, furrow)		50%
Gated Pipe		55%
Surge Valve		60%
Drip Irrigation		95%

EXAMPLE - A producer has 100 acres of irrigated ground to be offered, 50 acres in Field-A and 50 acres in Field B. The producer will convert Field-A from flood to surge. This will result in a 10% change in system efficiency. The producer will convert Field-B from a surge valve system to a drip system. This will result in a 35% change in system efficiency. The points for this would be computed as :

Field-A - 0.50 X 0.10 X 100 = 5
Field-B - 0.50 X 0.35 X 100 = 17.5
Total Points = 5 + 17.5 = 22.5

Maximum 30 pts. % improvement x 100 = _____pts.

1B. NEW DITCH LINING OR PIPELINE (water delivered to the field) (based on predominant soil type)

Sandy, Loamy sand, Sandy loam	30 pts.
Loam, Silty loam	25 pts.
Sandy clay loam, clay loam, silt	20 pts.
Silty clay, Silty clay loam	15 pts.
Sandy clay	10 pts.
Clay	5 pts.

Maximum 30 pts. _____pts.

(NOTE: POINTS MAY BE TAKEN FOR EITHER 1A OR 1B- NOT BOTH)

2. Irrigation Water Management

Must include at least one of the following: (Each practice is worth 5 points.)

a.) Well testing
b.) Use of Gypsum Blocks, ET, or Other Recommended Scheduling Tools
c.) Record Keeping
d.) System Measuring Device- weir or flume

Maximum 10 pts. _____pts.

3. **Contracted irrigated acreage of <u>new</u>** Ridge Till, No-Till, Mulch Till or Strip-Till
Must meet 329A, 329B or 329C criteria to manage moisture. 10 pts. _____pts.
Maximum 10 pts.

4. **Contracted irrigated acreage of <u>new</u> conservation buffers to protect water quality**
Alley cropping, Contour buffer strips, Field border, Filter strip, Grassed waterway, Vegetative barriers **Maximum 10 pts.** 10 pts. _____pts.

5. **Contracted acres of New Nutrient Management**
Must meet practice standard 590 **Maximum 10 pts.** 10 pts. _____pts.

6. **Consumptive Use of Crops Grown**

<u>CROP</u>	<u>POINTS</u>
Alfalfa	1
Pasture Grass/Sugar Beets/Potatoes/Onions	2
Corn Grain	3
Sorghum Grain & Corn Silage	4
Beans, dry & Small Vegetables	5
Wheat & other Small Grains (also Melons)	6

Points will be given for the next <u>3 years</u> of crops to be grown.

YEAR	**2004**	**2005**	**2006**	**TOTAL POINTS**
CROP				
POINTS				

(Maximum points 18)

Example: 100 acre tract with two fields. In 2004, 10 acres will be in Corn Grain and 90 acres will be in Corn Silage. In 2005, 100 acres will be in Beans. In 2006, 100 acres will be in Wheat. For 2004, [(0.10 X 3) + (0.90 X 4) = 3.9 pts. For 2005, Beans = 5 pts., and for 2006, Wheat = 6 pts. Total of 14.9 pts.

(EXAMPLE)

YEAR	**2004**	**2005**	**2006**	**TOTAL POINTS**
CROP	**Corn**	**Beans**	**Wheat**	
POINTS	(3.9)	(5)	(6)	(14.9)

Total Water Quantity/ Quality Ranking Points _____

Tie Breaking Criteria will be the highest points scored in Item 4 and then in Item 1.

Conservationist _____ Date _____

Applicant _____ Date _____

Environmental Quality Incentives Program
Upper South Platte River Watershed
Reduction In Soil Erosion Ranking Criteria
FY-2003

Note: Points can only be awarded if practices will be implemented to address the concern.

1) **Permanent vegetative cover** - The percent of the cropland acreage in the offered tract(s) to be converted to:

1A) adapted **native** (550) perennial species

a. < 1%	0 pts.
b. 1-15%	15 pts.
c. 15-30%	30 pts.
d. 30-60%	45 pts.
e. > 60%	60 pts.

Points _____

1B) adapted **introduced** (512) perennial species:

a. < 1%	0 pts.
b. 1-15%	5 pts.
c. 15-30%	9 pts.
d. 30-60%	15 pts.
e. > 60%	20 pts

Points _____

Maximum 60 points (1A + 1B) Points _____

Note: Points cannot be given for Permanent Vegetative Cover (1A & 1B) and Soil Quality (2) on the same acreage.

2.) **Soil Quality**. A change in the tillage system results in crops being no-tilled/ minimum tilled in the rotation:

a. for every no-till perennial broadleaf crop	14 pts.
b. for every no-till grass used for hay (part of rotation)	13 pts.
c. for every no-till summer annual broadleaf crop	12 pts.
d. for every no-till summer annual grass crop	10 pts.
e. for every no-till winter annual broadleaf crop	8 pts.
f. for every no-till winter annual grass crop	6 pts.
g. for every minimum tillage perennial broadleaf crop	12 pts.
h. for every minimum tillage grass used for hay (part of rotation)	11 pts.
i. for every minimum tillage summer annual broadleaf crop	10 pts.
j. for every minimum tillage summer annual grass crop	8 pts.
k. for every minimum tillage winter annual broadleaf crop	6 pts.
l. for every minimum tillage winter annual grass crop	4 pts.

Examples:
Summer annual broadleaf crops: sunflower, drybeans, soybeans, sugar beets
Summer annual grass crops: corn, millet, sorghum
Winter annual broadleaf crops: canola
Winter annual grass crops: wheat, barley
Perennial broadleaf crop: alfalfa
Perennial grass: orchardgrass, meadow brome

Maximum 38 pts. Points _____

3. **New windbreak** to protect farmstead/ livestock or field
Must meet practice code 380 (Maximum 12 pts)

Single row or twin-row high density	8 pts.
Multiple row	12 pts.

Maximum 12 pts. Points _____

4. **Soil Erodibility**. Determine the predominant soil type -33% or more of offered land unit (dominant soil in complexes). Use the data from the soil tables (distributed December 6, 2002 for each soil survey) for the following factors:

Predominant soil _____Hyd.Grp=_____RV=_____I=_____T=_____K_f=_____

A. **Hydrologic Grouping** (Runoff Potential) of the soil is:

a. Low (A)	4 pts.
b. Moderately low (B)	8 pts.
c. Moderately high (C)	12 pts.
d. High (D)	15 pts.

Points _____

B. **Representative Slope** (RV) is:

a. 0 - 2%	4 pts.
b. 2 - 4%	8 pts.
c. 4 - 6%	12 pts.
d. > 6%	15 pts.

Points _____

Note: Points may only be taken for C1 (wind erodibility) *or* C2 (water erodibility)—not both.

C1**. Wind Erosion Factors** I divided by T **(I / T)**

[Example I = 48, T = 5 (48/5= 9.6)] is:

a. < 12	15 pts.
b. 13 – 18	30 pts.
c. 18 – 30	45 pts.
d. > 30	60 pts.

Points _____

C2. **Water Erodibility factor K_f (from surface layer)**

a. 0.17 or less	15 pts.
b. 0.20 – 0.28	30 pts.
c. 0.32 – 0.37	45 pts.
d. 0.43 – 0.64	60 pts.

Points _____

5. **Reduced gully and ephemeral gully erosion**. The amount of land in the offered land unit is adversely affected by ephemeral gully and/or gully erosion:

A. High = > 50% of land area affected	20 pts.
B. Medium = 25 – 50% of land area affected	15 pts.
C. Low = < 25% of land area affected	10 pts.
D. None = none of land area affected	0 pts.

Points _____

6. **New conservation buffers** for soil erosion protection 12 pts.
Must meet practice code 332, 386, 393, 412, or 589C

Maximum 12 pts. **Points _____**

Total Soil Erosion Points: _____

Conservationist _____ Date: _____

Applicant _____ Date: _____

Ranking Criteria FY-03 EQIP
Upper South Platte River Watershed
Grazing Land/Grassland

1.) Targeting of grassland resource concerns:

Mark (X) on each of the grassland resource concerns present that will be **directly addressed as a result of the land treatment practices planned**. **No points will be awarded unless a planned practice is written into the contract that will directly address the resource concern.** Written justification and designation of the affected area(s) on a photo or map are required.

	Concern is present	List Planned practice	DESCRIPTION OF TARGETED RESOURCE CONCERNS
a.			Wind-scour, blowouts and/or deposition areas greater than 3 percent of offered acres
b.			Gullies caused by concentrated flow or livestock trailing that are actively eroding
c.			Degraded vegetative cover that has low production potential and low feed quality for livestock and/or wildlife
d.			Excessive overland runoff of precipitation due to type or condition of vegetative cover
e.			Noxious weed infestations greater than 3 percent of offered acres
f.			Water distribution limits the utilization of a pasture at the present time

(10 pts) for each resource concern that will be directly addressed as a result of the land treatment practices planned.

1.) Targeted resource concern points:_____

2.) Select one grazing management system or strategy:

a.	Prescribed grazing system where a rotational grazing system meeting NRCS FOTG criteria will be newly implemented to address documented grassland resource concerns	(55 pts)
b.	Prescribed grazing system where a rotational grazing system meeting NRCS FOTG criteria is currently used, but additional improvements to the system will be implemented to address documented grassland resource concerns	(40 pts)
c.	Season-long grazing strategy is utilized, but new practices will improve grazing distribution and address documented grassland resource concerns	(25 pts)
d.	Season-long grazing strategy where existing practices need to be replaced at their current location to maintain use of the grazing land	(10 pts)

2.) Grazing management incentive points:_____

Total Grassland Ranking points:_____

TIE BREAKING CRITERIA WILL BE THE HIGHEST POINTS SCORED IN ITEM 2.

Conservationist _____ **Date**_____

Applicant _____ **Date**_____

Clarification and guidelines on 1.) Targeting of grassland resource concerns

a. Identify location of wind-scour, blowout and/or depositional area(s) on aerial photo. Multiple areas can be combined to meet the minimum size criteria as long as they are in the same grazing unit receiving land treatment.

b. Identify location of gully erosion on aerial photo. Affected areas need to be significant problems with a high potential for continued degradation. Example: a gully started by a cow trail that is 100 feet long and 2 feet deep.

c. Seeding or interseeding would likely be necessary to improve the quantity and quality of vegetation. Grazing management alone would not bring about the desired vegetation.

d. Vegetation is short due to species composition or grazing management. Runoff rate is rapid and infiltration is limited due to low stature and density of vegetation. Drought conditions exist as a result of high runoff and low water infiltration. Applies to heavier textured soils.

e. Identify location of noxious weed infestation(s) on aerial photo. Multiple areas can be combined to meet the minimum size criteria as long as they are in the same grazing unit receiving land treatment.

f. Document a grazing unit where no water sources are currently available. This may be a field that was previously enrolled in a reserve program or a cropland field that has been seeded to range or pasture. The grazing unit must be part of a prescribed grazing plan.

Ranking Criteria FY-03 EQIP
Upper South Platte River Watershed
Non-Point Source Reduction - Livestock Waste

1.) **Location of Existing Facility**:

1A. 100 year Flood plain (yes = 10 pts.) _____pts.

1B. Depth to groundwater
100/depth in ft. _____pts.

1C. Distance to Surface Water
1000/distance in ft. _____pts.

2.) Plan Components

	Adequate 0.0 pts.	exists Inadequate 5 pts.	non-existent 10 pts.
Collection and Transport	_____	_____	_____
Storage or Treatment	_____	_____	_____
Seepage Control	_____	_____	_____
Transfer and Utilization	_____	_____	_____

3. **New conservation buffers** planned to protect water quality due to degraded surface and groundwater quality from confined animal wastes. Maximum 20 points.
10 points _____

TOTAL LIVESTOCK Waste Pts._____

Tie Breaking Criteria will be highest points scored in Item 1, then Item 2, then Item 3.

Conservationist _____ Date_____

Applicant _____ Date_____

Upper South Platte Watershed EQIP Wildlife Ranking Criteria
FY 2003

Projects must have wildlife habitat improvement as the primary intent for use of funds, and fully described habitat management practices in the conservation plan.

1) The proposed contract is located within a wildlife area and addresses the target species. See attached map or descriptions (mule deer, mountain plover, and riparian areas) for locations of wildlife areas.

Within a wildlife area	10	
Outside wildlife areas	0	_____

2) The proposed practice(s) are intended to maintain, enhance, or restore which habitat types?
Pick one habitat type only for a maximum of 15 points. Habitat type selected must correspond to habitat used by species selected in #3.

Sagebrush-steppe, riparian, shortgrass, mountain shrub, or warmwater stream	15	
Midgrass/sand sage, foothills, cropland, coldwater stream	7	
Wetland, p-j, deciduous/coniferous woodland, other	1	_____

3) Project applies practice(s) for: (You should pick the one highest category or species if a species fits in more than one category or if you have more than one species on this item).

EQIP Targeted species of Republican Watershed- pheasant 10 points
Or WHIP Economically Important Species- pheasant 5 points

Note: The Republican River Watershed chose to address pheasant and greater prairie chickens as key species through EQIP, thus the 10 points. In the WHIP ranking, pheasant will be given 5 points, the same as the rest of the state.

A State species of special concern, a state threatened species, a Federal candidate species, or a declining species 10 points

Includes: lesser prairie chicken, long-billed curlew, Cassin's sparrow
Columbian sharp-tailed grouse
Gunnison's sage grouse
northern sage grouse
mountain plover, burrowing owl, black-tailed prairie dog,
greater prairie chicken, upland sandpiper
east slope warmwater fish (see attached species list)
Colorado River cutthroat trout
Greenback cutthroat trout
Rio Grande cutthroat trout
piping plover
greater sandhill crane
long-billed curlew
kit fox
mule deer west of Interstate 25 or south of U.S. Highway 50 and
west of U.S. Highway 287/385

OR

A state endangered or a Federal threatened or endangered species 7 points

Includes: black footed ferret
plains sharp-tailed grouse
Colorado pikeminnow
humpback chub
razorback sucker
bonytail chub
Preble's meadow jumping mouse
bald eagle
fish-Colorado River species
southwest willow flycatcher

OR

Declining native species, or economically important species 5 points

Includes: grassland birds
northern bobwhite
scaled quail
bighorn sheep (desert and Rocky Mountain)
pronghorn
elk
mule deer east of Interstate 25 or north of U.S. Highway 50 and East of U.S. Highway 287/385

white-tailed deer
trout (stream habitat only)
turkey

OR

Species with stable or increasing populations, or not otherwise listed 2 points

_____

This category becomes a limiting factor if habitat for a state or federal threatened or endangered species is destroyed with the project

4) Practices planned address limiting factors for target species. Species specific practices found in Biology Technical Notes # 10-20 are worth 10 points. If the project is applying practices not listed in the Biology Tech Notes, the local Work Group may assign a point value in concurrence with the NRCS Area Biologist or other designated Area representative. Maximum of 10 points.

_____

5) Is the project adjacent to a specific habitat enhancement, maintenance, or restoration effort?
(i.e. several adjoining landowners all are installing wildlife habitat practices under wildlife habitat programs. Examples include one of the following: CRP (wildlife planting), PHIP, RMEF, DU, Partners for Wildlife, and other programs as approved by NRCS Area Biologist or Area Representative.)

Yes = 10
No = 0 _____

6) Three points for each partner contributing dollars or in-kind contributions. This includes the Pheasants Forever, Ducks Unlimited, etc. The landowner and NRCS are NOT considered partners. No more than 12 points (4 different partners) maximum for this factor.

_____

7) Proximity to occupied dwelling measured from dwelling to center of area treated.

> 1/4 mile = 10
1/8 - 1/4 mile = 5
< 1/8 mile = 0 _____

Total points (Maximum of 77 points possible) _____

Mule Deer Wildlife Area

The mule deer wildlife area covers all land west or south of a line running from Interstate 25 at the Wyoming border, south to U.S. Highway 50, east to U.S. Highway 287/385 and south to the New Mexico border.

Mountain Plover Habitat Area

The mountain plover habitat area covers all land in Colorado east of Interstate 25 on sites suited to shortgrass. In addition, Park County grasslands are included in the mountain plover area.

Riparian Habitat Areas

Riparian areas associated with perennial streams in the South Platte Basin if they support 10 or 7 point fish species. See attached list for species and Area/State Biologist for map of specific reaches.

Riparian areas within designated critical habitats (as per USFWS designation) in the Colorado, Rio Grande, and San Juan Basins for both fish and southwest willow flycatcher. Contact Area or State Biologist if unsure of critical habitat locations.

Riparian areas in Preble's meadow jumping mouse range - Larimer, Boulder, Jefferson, El Paso, Elbert, Weld, and Douglas Counties. Call Area/State Biologist if unsure of exact range.

Colorado Fish Species Designations

Republican River Basin

- State Threatened or Special Concern Species (10 points)
  - Brassy minnow
  - River shiner
  - Plains orangethroat darter
  - Stonecat
- State Endangered Species (7 points)
  - Plains minnow
  - Suckermouth minnow